ABSTRACT OF THE DISCLOSURE

A system for determining a bad link in a ring includes a start-up controller that

transmits a link command having a position field holding initial value. Each device in the
ring increments the value held in the position field of a received position command and
transmits a modified position command having a position field holding an incremented value.

If no valid position command is received at a device it transmits a modified position
command having a position field holding the initial value. The start-up device compares the
received value held in the position field of a received position command with an expected
value to determine the existence and location of a bad link.